

Cowley County

Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors

6/22/2017

Using the most recent IMPLAN data available (2015) adjusted for 2017, 23 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Cowley County economy.¹

These 23 sectors have a total direct output of approximately **\$1.6 billion** and support **2,397.8 jobs** in Cowley County. Running the model for all 23 sectors simultaneously produces the following results:

Agriculture, Food, and Food Processing Sector Contribution to Overall Cowley County Economy						
Impact Type ²	Employment	% Employment	Total Value Added ³	Total Value Added % of Gross Regional Product ⁴	Output ⁵	Output % of Gross Regional Product
Direct Effect	2,397.8	12.27%	\$405,381,722	28.48%	\$1,602,779,818	112.60%
Indirect Effect	1,308.4	6.69%	\$71,814,544	5.05%	\$157,338,963	11.05%
Induced Effect	581.7	2.98%	\$34,869,424	2.45%	\$63,006,299	4.43%
Total Effect	4,288.0	21.94%	\$512,065,690	35.98%	\$1,823,125,079	128.08%

As shown in the above table, agriculture, food, and food processing sectors support **4,288.0 jobs**, or **21.94%** of the entire workforce in the county. These sectors provide a total economic contribution of approximately **\$1.8 billion**, roughly **128.08% of the economy**.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 23 agriculture, food, and food processing sectors is approximately **\$512.1 million**, or **35.98% of the GRP**. This indicates that personal income, business income, and taxes generated by these sectors account for **35.98% of the total economy**.

The following tables document the overall summary numbers of the model, top industries affected by employment and output, and a listing of all industries that were analyzed.

¹ Article on building a contribution analysis in IMPLAN that avoids double counting:

http://www.implan.com/index.php?option=com_content&view=article&id=660%3A660&catid=253%3A3KB33&Itemid=70

² Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

³ Value added = labor income + indirect business taxes + other property type income.

⁴ GRP = final demand of households + governments expenditures + capital + exports - imports - institutional sales.

⁵ Output = intermediate inputs + value added.

In the top ten agriculture, food, and food processing sectors by employment, the beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming sector is the top employer with **690.0 employees**. This table also shows the amount of jobs that are created by the agriculture industry in Cowley County.

Top Ten Agriculture, Food, and Food Processing Sectors by Employment		
Sector	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	690.0	\$52,818,232
Animal, except poultry, slaughtering	661.8	\$474,884,347
Flavoring syrup and concentrate manufacturing	405.1	\$881,460,254
Support activities for agriculture and forestry	299.7	\$9,710,910
Truck transportation	216.5	\$27,725,547
Grain farming	153.0	\$36,341,656
Wholesale trade	134.6	\$27,647,688
Landscape and horticultural services	131.9	\$4,489,699
All other crop farming	127.5	\$6,229,963
Insurance agencies, brokerages, and related activities	88.2	\$12,101,234

The flavoring syrup and concentrate manufacturing sector directly contributes approximately **\$881.5 million** to the Cowley County economy. The table below also shows the amount of revenue that is generated in other industries by having a strong agriculture industry.

Top Ten Agriculture, Food, and Food Processing Sectors by Output		
Sector	Total Employment	Total Output
Flavoring syrup and concentrate manufacturing	405.1	\$881,460,254
Animal, except poultry, slaughtering	661.8	\$474,884,347
Flour milling	76.4	\$111,492,601
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	690.0	\$52,818,232
Grain farming	153.0	\$36,341,656
Truck transportation	216.5	\$27,725,547
Wholesale trade	134.6	\$27,647,688
Rail transportation	35.9	\$17,925,923
Monetary authorities and depository credit intermediation	85.0	\$14,930,857
Owner-occupied dwellings	0.0	\$14,323,971

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture, food, and food processing sector and the output they contributed to the Cowley County economy.

All Agriculture, Food, and Food Processing Sectors		
Sector	Total Employment	Total Output
Oilseed farming	14.8	\$10,598,081.59
Grain farming	153.0	\$36,341,655.73
Vegetable and melon farming	0.1	\$11,541.61
Fruit farming	1.8	\$119,592.36
Tree nut farming	0.04	\$7,096.23
Greenhouse, nursery, and floriculture production	9.5	\$1,018,397.21
Cotton farming	5.0	\$1,018,908.38
All other crop farming	127.5	\$6,229,962.83
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	690.0	\$52,818,229.68
Dairy cattle and milk production	17.1	\$4,644,899.85
Poultry and egg production	1.1	\$627,909.12
Animal production, except cattle and poultry and eggs	8.3	\$711,944.94
Commercial logging	14.8	\$559,645.95
Flour milling	76.4	\$111,492,607.12
Confectionery manufacturing from purchased chocolate	3.8	\$3,935,721.40
Animal, except poultry, slaughtering	661.8	\$474,884,338.38
Bread and bakery product, except frozen, manufacturing	18.2	\$2,111,351.73
Frozen cakes and other pastries manufacturing	1.1	\$166,196.58
Flavoring syrup and concentrate manufacturing	405.1	\$881,460,205.08
Wineries	12.5	\$3,552,896.98
All other industrial machinery manufacturing	1.7	\$2,333,036.66
Veterinary services	42.6	\$3,645,845.17
Landscape and horticultural services	131.9	\$4,489,698.41

All 105 counties in Kansas have an IMPLAN model and an agriculture, food, and food processing contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Cowley County, the retail sector was omitted.